

Presentations01

Describe the Babylonian technique for finding the square root. Do an example.	
Describe the Egyptian technique for finding the square root. Do an example.	
Describe the Egyptian technique for division. Do an example.	
Express $\frac{4}{5}$ in Egyptian format.	
Argue that every rational number between 0 and 1 can be expressed as a finite sum of reciprocals of positive integers. Give an algorithm to do this.	
Add $\frac{4}{5}$ and $\frac{3}{4}$ using the Egyptian format.	
Select two problems from the Rhind papyrus to solve.	
Select two problems from the Moscow papyrus to solve.	
Prove that vertical angles are congruent.	
Prove that an angle inscribed in a semi-circle is a right angle.	
Give a simple proof of the Pythagorean theorem.	
Find the formula for the n^{th} triangular number.	
Find the formula for the n^{th} pentagonal number.	
Prove that the square root of 2 is irrational.	
Prove that the square root of 3 is irrational.	
Discuss and explain Zeno's Achilles and the Tortoise 'paradox.' Why is it a 'paradox'?	
What were Zeno's paradoxes? What was their purpose?	
Prove that there are only five Platonic solids.	
With compass and straight edge: bisect an angle.	

With compass and straight edge: square the equilateral triangle.	
With compass and straight edge: duplicate the square.	
With compass and straight edge: construct a regular pentagon.	